4. (Amended) An automation system according to claim 1, wherein the first memory of the first controller comprises a routing table indicating, for each device, other devices which can receive and process a signal transmitted by said device.

6. (Amended) An automation system according to claim 1, wherein one or more of the plurality of devices are further adapted to receive an input from the appliance connected thereto, and wherein the processor of a device is adapted to, in response to the received input, generate and transmit a first signal.

9. (Amended) An automation system according to claim 1, wherein the appliance connected to one or more of the plurality of devices is a sensor selected from the group consisting of electromagnetic radiation sensor, luminosity sensor, moisture sensor, movement sensor, temperature sensor, mechanical actuator contact, sound sensor, pressure sensor, electric signal sensor, smoke detector, audio pattern recognizing means, visual pattern recognizing means and molecular composition analyzing means.

11. (Amended) An automation system according to claim 1, wherein one or more of the plurality of devices are further adapted to generate an output to the appliance connected thereto in

2

response to a received signal, said output being related to the operational state of the appliance.

13. (Amended) An automation system according to claim 11, wherein a device is adapted to prohibit the output in response to a received first set of instruction or a first code or predetermined action provided by the user, and wherein said restriction can only be removed in response to a received second set of instructions or a second code or predetermined action provided by the user.

18. (Amended) A method according to claim 15, further comprising the step of building a routing table indicating, for each device, other devices which can receive and process a signal transmitted by said device, and storing the routing table in the first memory of the first controller.

20. (Amended) A method according to claim 15, further comprising the step of, upon receiving a first or a second signal at a device, generate and transmit an acknowledgement signal having the identifier of the device or controller transmitting the first or second signal as destination identifier.